

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
Connect America Fund)	WC Docket No. 10-90
)	
Developing a Unified Intercarrier Compensation Regime)	CC Docket No 01-92

REPLY COMMENTS OF SPRINT CORPORATION

Sprint Corporation (“Sprint”) hereby respectfully submits its reply to comments filed on October 26, 2017, in the above-referenced proceedings which refreshed the record on intercarrier compensation (“ICC”) reform. There is widespread agreement that the Commission should act expeditiously to implement a system of bill-and-keep for originating access elements, remaining terminating access elements, and transit charges, and to designate as the default network edge a relative handful of regional points of interconnection. The Commission should reject calls to entrench ever more deeply the legacy access charge regime and to adopt the extremely inefficient end-office based network configuration as the network edge for the exchange of IP voice traffic.

In its *2011 ICC Transformation Order*, the Commission described the enormous public interest benefits that would result from implementation of a system of bill-and-keep, including the elimination of competitive distortions between wireline and wireless services, modernization of rules, and facilitation of the transition to IP.¹ Numerous commenting parties agreed with this analysis, but pointed out that problems still plague

¹ *Connect America Fund et al., Report and Order and Further Notice of Proposed Rulemaking*, 26 FCC Rcd 17663 (2011), para. 34 (“*2011 ICC Transformation Order*”).

the industry because of the far-from complete transition to bill-and-keep and the remaining inefficiencies in the intercarrier compensation regime: wireline carriers are still allowed to charge for access, while CMRS carriers are not, and can use the legacy access charge regime to the benefit of their IXC affiliates;² roadblocks to the transition to all-IP networks remain (incumbent carriers have a strong incentive to maintain their legacy networks as long as they can charge access for its use, rather than converting to the far more efficient and lower-cost IP networks);³ and access stimulation schemes (mileage pumping, tandem rehomeing, and traffic pumping via toll-free numbers) remain rampant.⁴

Key to addressing these deficiencies is the application of a system of bill-and-keep to *all* access elements, and doing so expeditiously.⁵ There is no rational reason to

² See, e.g., Sprint, pp. 1, 6; T-Mobile, p. 6.

³ Carriers with IP networks that are forced to route their voice traffic over legacy access networks incur high costs and bear the burden of extreme network inefficiencies; see, e.g., Sprint, p. 1; T-Mobile, p. 2; HD Tandem, p. 2; NCTA, p. 2 (“NCTA members still spend millions of dollars every year converting IP-based voice traffic to TDM solely so that it can be exchanged with incumbent LECs”).

⁴ See, e.g., Sprint, p. 2; AT&T, p. 3; Verizon, p. 3; T-Mobile, p. 3. See also letter from Alan Buzacott, Verizon, to Marlene Dortch, FCC, dated Nov. 6, 2017, p. 1, filed in WC Docket Nos. 10-90 and 01-92 (“the delay in completing the transition to bill and keep has allowed both 8YY- and transport-based arbitrage schemes to proliferate”). Multiple access stimulation complaints have been brought before the Commission; see, e.g., *AT&T Corp. v. Iowa Network Services, Inc., d/b/a Aureon Network Services*, Proceeding Number 17-56, Bureau ID No. EB-17-MD-001 (filed June 8, 2017); *AT&T Corp. v. Great Lakes Communication Corp.*, Proceeding No. 16-170, Bureau ID No. EB-16-MD-001 (filed Aug. 16, 2016).

⁵ See, e.g., Sprint, p. 4 (also recommending that ILECs be required to provide transit service at TELRIC rates); Verizon, p. 1; AT&T, p. 2; T-Mobile, p. 5 (if the Commission’s ICC reform goals are to be achieved, it must “jumpstart the IP transition”); NCTA, p. 2.

devote additional time and resources patching a broken, highly inefficient legacy system.

As HD Tandem correctly stated:⁶

Rather than fixing the outdated PSTN, the FCC should take advantage of this opportunity to create a regulatory environment in which IP-based technologies flourish and providers have the incentives to engage in the IP transition for the benefit of the public interest.

Not surprisingly, certain parties, especially those that have a vested interest in maintaining the legacy access regime, oppose intercarrier compensation reform.⁷ While their interest in protecting their legacy access revenue streams may be understandable, the public interest demands that bill-and-keep proceed apace. As more and more voice traffic is handled in IP format (on at least one segment of the call), it makes less and less sense to cling to the legacy, above-cost per minute of use intercarrier compensation rate structure which contrasts so sharply with the costs of deploying highly efficient all-IP networks capable of handling all IP traffic, including voice. The Commission must also reject as a grossly untimely petition for reconsideration calls by CenturyLink and ITTA to reverse the existing rule (adopted in the *2011 ICC Transformation Order*) mandating bill-and-keep for tandem switching and transport services, for both traffic bound for the tandem provider's affiliated end users and for unaffiliated end users.⁸

Equally harmful to the public interest and to efforts to transition to all-IP networks is the recommendation that the network edge – the point of interconnection for

⁶ HD Tandem, p. 3.

⁷ See, e.g., NTCA/WTB, p. 3 (no ICC reform until the Commission addresses high-cost USF budget shortfalls); CenturyLink, p. 3; ITTA, p. 7 (Commission should decline to regulate the “competitive market for transit services”) and p. 13 (reverse the transition to bill-and-keep for tandem switching and transport); Peerless Network, Inc. *et al.*, p. 23 (tandem switching and transport services to the network edge should not be subject to bill-and-keep); Pennsylvania PUC reply comments filed November 13, 2017, p. 3 (bill-and-keep for remaining access elements is “premature”).

⁸ CenturyLink, p. 5; ITTA (of which CenturyLink is a member), p. 13.

the exchange of traffic at which bill-and-keep applies – be defined in terms of the legacy access network. It makes no engineering or economic sense to exchange voice traffic at thousands of end offices across the country when such an exchange can be achieved at virtually zero incremental cost over the national IP networks already in use to exchange the massive volume of data and video traffic. Yet, this is precisely the recommendation made by CenturyLink and ITTA, which have urged the Commission to establish the end office as “the proper default network edge for all providers.”⁹

Beyond the apparent desire to retain legacy access revenue streams, CenturyLink’s proposal here appears to be based on the contention that designating end offices as the network edge is necessary to ensure competitive parity. CenturyLink has stated that all tandem providers should “be compensated equally for the use of their networks,” and that this outcome is achieved only by making the end office the default point of interconnection.¹⁰

Aside from the irony of CenturyLink’s argument (CMRS carriers, unlike wireline carriers, may not assess access charges for the use of their networks even though CMRS carriers are providing functionally equivalent services), CenturyLink ignores the enormous inefficiency and perverse incentives inherent in the imposition of intercarrier compensation charges on the exchange of traffic at thousands of end offices, and that the incremental cost of routing IP voice traffic to the same IP network that handles IP data and video traffic is, in contrast, close to zero. As the Commission has made clear in the context of Section 251(c)(2), the interconnection obligation of the Telecommunications Act “allows competing carriers to choose the most efficient points at which to exchange

⁹ CenturyLink, p. 3; *see also*, ITTA, p. 2.

¹⁰ CenturyLink, p. 4.

traffic with incumbent LECs,”¹¹ and that principle applies equally to the exchange of access voice traffic. The efficiencies of IP networks will never be fully achieved if carriers are forced to exchange their voice traffic at an end office level, or even at one POI per LATA.

The Commission should accordingly reject outright the proposal to designate end offices as the network edge. Instead, it should define the network edge in a manner which reflects IP engineering realities and economic efficiencies. Sprint urged that the default network edge for the exchange of voice traffic be the same Internet exchange points (IXPs) used to interconnect IP data and video traffic, with each carrier assuming responsibility for the cost of delivering traffic to and accepting traffic at those regional points of interconnection.¹²

T-Mobile similarly espoused the exchange of traffic at “Safe Harbor POIs” – no more than one Safe Harbor POI per state or group of states (“[i]deally, the entire country would be served by a maximum of 8 to 15 Safe Harbor POIs”), based on where the maximum number of carriers are already interconnected and where there is sufficient capacity or potential capacity to accommodate interconnection by all other carriers in that geographic area. Under T-Mobile’s proposal, each carrier would be responsible for the cost of the interconnection facilities on its side of the Safe Harbor POI, and all traffic exchanged at a Safe Harbor POI would be subject to bill-and-keep.¹³

¹¹ *First Report and Order, Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98, released August 8, 1996, para. 172.

¹² Sprint, p. 2.

¹³ T-Mobile, pp. 10-16.

The Commission should adopt a network edge definition that reflects and promotes the benefits of a regional POI proposal such as those recommended by Sprint and T-Mobile. To further strengthen the proposals, the Commission should also incorporate the corollary recommended by AT&T: “the carrier that bears the financial responsibility to deliver traffic to (or from) the edge has the unfettered right to choose how and by what arrangements it will deliver that traffic to (or from) the designated edge.”¹⁴ This corollary will help to prevent arbitrage opportunities by entities attempting to maximize their transport revenues at the expense of the carrier that is exchanging traffic at the network edge.

Finally, in designating regional points of interconnection as the default network edge, the Commission should make it clear that all carriers are subject to this standard. For example, AT&T should not be allowed to refuse to exchange IP voice traffic at the default regional network edge at bill-and-keep by arguing that IP-to-IP interconnection is “unregulated.”¹⁵ Allowing any carrier to evade the default network edge would undo the public interest benefits of designating the edge and the bill-and-keep regime.

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If the indisputable benefits of bill-and-keep are to be realized, the Commission must mandate its application to all access rate elements. To further streamline intercarrier compensation arrangements and to achieve the benefits of IP technology, the Commission also should adopt a network edge definition that mandates the default exchange of voice traffic at regional points of interconnection, with each carrier assuming

¹⁴ AT&T, p. 7.

¹⁵ AT&T, p. 24.

responsibility for the cost of delivering traffic to and accepting traffic at those regional points of interconnection.

Respectfully submitted,

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